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| APPLICATION NO.     | FILING DATE                       | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---------------------|-----------------------------------|----------------------|---------------------|------------------|
| 10/585,446          | 07/07/2006                        | Hiroshi Tsuzuki      | Q79390              | 2495             |
| 23373<br>SUGHRUE MI | 7590 05/12/201<br>ON, PLLC        | EXAMINER             |                     |                  |
| 2100 PENNSY         | LVANIA AVENUE, N                  | LE, HOA T            |                     |                  |
|                     | SUITE 800<br>WASHINGTON, DC 20037 |                      | ART UNIT            | PAPER NUMBER     |
|                     |                                   |                      | 1787                |                  |
|                     |                                   |                      |                     |                  |
|                     |                                   |                      | NOTIFICATION DATE   | DELIVERY MODE    |
|                     |                                   |                      | 05/12/2010          | ELECTRONIC       |

## Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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|  | Application No.   | Applicant(s)                                       |  |  |  |
|--|---|--|--|--|--|
|  | 10/585,446  | TSUZUKI ET AL.                                     |  |  |  |
| Office Action Summary  | Examiner  | Art Unit   |  |  |  |
|  | H. (Holly) T. Le  | 1787   |  |  |  |
| The MAILING DATE of this communication app<br>Period for Reply   | ears on the cover sheet with the c  | orrespondence address                              |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). |   |  |  |  |  |
| Status   |   |  |  |  |  |
| 1) Responsive to communication(s) filed on   |   |  |  |  |  |
| 2a) This action is <b>FINAL</b> . 2b) This   | n) ☐ This action is <b>FINAL</b> . 2b) ☐ This action is non-final.  |  |  |  |  |
| 3)☐ Since this application is in condition for allowan   | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is       |  |  |  |  |
| closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  |   |  |  |  |  |
| Disposition of Claims  |   |  |  |  |  |
| <ul> <li>4) Claim(s) 1-38 is/are pending in the application.</li> <li>4a) Of the above claim(s) is/are withdrawn from consideration.</li> <li>5) Claim(s) is/are allowed.</li> <li>6) Claim(s) is/are rejected.</li> <li>7) Claim(s) is/are objected to.</li> <li>8) Claim(s) 1-38 are subject to restriction and/or election requirement.</li> </ul>  |   |  |  |  |  |
| Application Papers   |   |  |  |  |  |
| 9) The specification is objected to by the Examiner 10) The drawing(s) filed on is/are: a) access Applicant may not request that any objection to the of Replacement drawing sheet(s) including the correction of the original transfer and the correction is objected to by the Example 11).  | epted or b) $\square$ objected to by the Edrawing(s) be held in abeyance. See on is required if the drawing(s) is obj | e37 CFR 1.85(a).<br>ected to. See 37 CFR 1.121(d). |  |  |  |
| Priority under 35 U.S.C. § 119   |   |  |  |  |  |
| <ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>  |   |  |  |  |  |
| Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 4) Interview Summary Paper No(s)/Mail Da  | te   |  |  |  |
| 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date   | 5)  Notice of Informal P  | асені Арріісаціон                                  |  |  |  |

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## Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claims 1-20, drawn to an inorganic powder.

Group II, claims 21-38, drawn to a resin composition.

- 2. The groups of inventions listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:
- 3. Group I invention solves the problem of providing an alternative inorganic powder, which is suitable as thermally conductive filler in resin compositions and allows high loading of the resin composition with the filler without causing the viscosity to increase too much.

Group II invention solves the problem of providing an alternative resin composition filled with the inorganic powder defined in claims 1 to 20 having a high thermal conductivity and electrical insulating properties and various products comprising this resin composition.

## 4. Non-unity a posteriori

Motivation of non-unity (Rule 13, PCT),

The problems mentioned above are solved by the two inventions as defined above.

For unity a common concept, which is novel as well as inventive and linking the two inventions as defined above, must exist.

4.1. The common concept linking the two inventions above is the inorganic powder as defined in claim 1 having a frequency-size distribution with multiple peaks, wherein '~he peaks are present at least in the particle size regions from 0.2 to 2 micrometer and from 2 to 63 micrometer.

EP-A-276321 discloses mixtures of an alumina powder with an average particle size falling within the interval 0.2 to 2 micrometer and an alumina powder with an average particle size falling within the interval 2 to 63 micrometer. This mixture is incorporated in resin compositions with the objective of obtaining a high thermal conductivity. See Examples 12 to 17.

US-A-6284829 discloses a filler comprising an inorganic powder with an average particle size of 10 to 40 micrometer and an inorganic powder with an average particle size of 0.1 to 0.5 micrometer. The filler is incorporated in resin compositions with the objective of obtaining a high thermal conductivity. See claim 9.

EP-A-361109 discloses mixtures of a silica powder with an average particle size falling within the interval of 2 to 63 micrometer and a silica powder with an average particle size falling within the interval 0.2 to 2 micrometer. See examples 4 and 5 and claim 1.

4.2. The common concept linking the two inventions as defined above is therefore known from EP'321, US'829 and EP'109. No other common concept based upon the technical features of the set of claims appears to exist, which would overcome the non-

unity objections made above. The present application does therefore not satisfy the requirements of Rule 13 PCT as non-unity a posteriori as defined above has been noted to exist.

5. Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected invention or species.

Should applicant traverse on the ground that the inventions have unity of invention (37 CFR 1.475(a)), applicant must provide reasons in support thereof.

Applicant may submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case.

Where such evidence or admission is provided by applicant, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

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6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to H. (Holly) T. Le whose telephone number is 571-272-1511. The examiner can normally be reached on 12:30 p.m. to 9:00 p.m. (EST), Mondays to Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on 571-272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. (Holly) T. Le/ Primary Examiner, Art Unit 1787 Application/Control Number: 10/585,446

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